

REMARKS

None of the claims have been amended or cancelled. Claims 1-20 are pending and under consideration. No new matter is presented in this Amendment. Claims 1, 13 and 18 are the independent claims. No new matter is presented in this response.

REJECTIONS UNDER 35 U.S.C. §102:

Claims 1-17 are rejected under 35 U.S.C. §102(b) as being anticipated by Izumi (U.S. Patent No. 6,778,475).

Regarding the rejection of independent claim 1, it is noted that claim 1 recites a photodetector for, when light emitted from a two-wavelength light source is divided into at least three light components to be reflected by an optical recording medium, detecting the reflected light components, the photodetector comprising: a first detector divided into eight sections detecting the at least three light components reflected by the optical recording medium to convert the light components into a first set of electrical signals; a first calculating portion calculating a first tracking error signal from the first set of electrical signals converted by the first detector by a differential push-pull method; a second calculating portion calculating a first focusing error signal by an astigmatism method and calculating a second tracking error signal by a differential phase detection method from the first set of electrical signals converted by the first detector; a second detector divided into four sections detecting the at least three light components reflected by the optical recording medium to convert the at least three light components into a second set of electrical signals; and a third calculating portion calculating a second focusing error signal by the astigmatism method and calculating a third tracking error signal by the differential phase detection method from the second set of electrical signals converted by the second detector.

The Office Action relies on Izumi for a teaching of the features of independent claim 1 and in particular cites column 15, lines 34-53 and column 16, line 51 – column 17, line 53 for such teachings.

However, a careful review of the reference indicates that Izumi neither teaches nor suggests the novel features of the independent claim, for at least the following reasons.

Although Izumi discloses a photodetector divided into several sections, Izumi fails to teach or suggest a first detector divided into eight sections, as recited in the independent claim.

As illustrated in Fig. 9 of Izumi, the first detector, used for detecting signals from the DVD, includes elements 210, 211 and 212, each of which is divided into four sections. Therefore, the alleged first detector is divided into 12 parts and not 8 parts, as recited in the independent claim. Accordingly, Izumi fails to teach or suggest this novel feature of the independent claim.

Independent claim 1 also recites a second calculating portion calculating a first focusing error signal by an astigmatism method and calculating a second tracking error signal by a differential phase detection method from the first set of electrical signals converted by the first detector. Izumi, on the other hand, simply discloses a calculating portion calculating a first tracking error signal by a differential push-pull method (column 16, lines 51-58 and Fig. 9) and a second calculating portion calculating a first focusing error signal by an astigmatism method (column 16, lines 63-67 – column 17, line 1 and Fig. 9). That is, Izumi at most teaches calculating a first tracking error signal and a first focusing error signal. Although, Izumi does disclose calculating another tracking error signal, that is, the tracking error signal of the CD, this tracking error signal is not calculated from the first set of electrical signals (a, b, c, d, e, f, g, h, i, j, k and l, illustrated in Fig. 9) converted by the first detector (elements 210, 211 and 212 illustrated in Fig. 9), but is rather calculated from a second set of electrical signals (m, n, o, p, q, r, s, and t, illustrated in Fig. 9) converted by the second detector (elements 410, 411 and 412, illustrated in Fig. 9). Accordingly, Izumi also fails to teach or suggest this novel feature of independent claim 1.

Furthermore, Applicants note that independent claim 1 also recites a second detector divided into four sections detecting the at least three light components reflected by the optical recording medium to convert the at least three light components into a second set of electrical signals. As noted above, although Izumi teaches a second detector (410, 411 and 412) detecting light components reflected by the optical recording medium (CD) and converting the light components into electrical signals, this second detector is not divided into four sections as recited in independent claim 1, but is rather divided into eight sections (m, n, o, p, q, r, s and t). Therefore, Izumi also fails to teach or suggest this novel feature of independent claim 1.

Accordingly, Applicants respectfully assert that Izumi fails to teach or suggest at least these novel features of independent claim 1 and therefore respectfully request that the rejection of independent claim 1 under 35 U.S.C. §102(b) be withdrawn.

Regarding the rejections of independent claim 13, it is noted that this claim recites some substantially similar features as claim 1. Thus, the rejection of this claim is also traversed for

substantially the same reasons set forth above.

Regarding the rejection of claims 2-12 and 14-17, it is noted that these claims depend from independent claims 1 and 13. and as noted above, Izumi fails to teach or suggest the novel features of the independent claims. Therefore, Applicants respectfully assert that the rejection of dependent claims 2-12 and 14-17 under 35 U.S.C. §102(b) should be withdrawn, at least, because of their dependency from claims 1 and 13 and the reasons set forth above, and because the dependent claims include additional features which are not taught or suggested by the prior art.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 18-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Izumi (U.S. Patent No. 6,778,475) in view of Timmers (U.S. Patent No. 5,400,093).

Regarding the rejection of independent claim 18, it is noted that claim 18 recites a photodetector comprising: a first detector detecting components reflected from an optical recoding medium and a beam splitter and converting the reflected light components into a first set of electrical signals; and a second detector detecting the light components reflected from the optical recording medium and the beam splitter and converting the reflected light components into a second set of electrical signals, wherein a center of the first detector is separated from a center of the second detector by a predetermined distance proportional to a thickness of the beam splitter.

The Office Action recognizes that Izumi fails to teach or suggest that a center of the first detector is separated from a center of the second detector by a predetermined distance proportional to a thickness of the beam splitter, and relies on Timmers for such teaching. In particular, the Office Action cites column 15, lines 23-28 and Figs. 18 and 19 of Timmer for such teachings.

However, Applicants respectfully assert that Timmers also fails to teach or suggest this novel feature for at least the following reason. Although Timmers discloses various detectors (130, 131, 132 and 133), radiation spots and a beam splitter, and a relationship between the detectors and the radiation spots (S_a and S_b), Timmers makes no reference or suggestion of a relationship between the centers of the detectors and the thickness of the beam splitter. As a matter of fact, nowhere in Timmers is the thickness of the beam splitter mentioned nor the

center of the detectors. Accordingly, Applicants respectfully assert that Timmers also fails to teach or suggest this novel feature of independent claim 18 and thus fails to cure the deficiencies of Izumi. Therefore, Applicants respectfully request that the rejection of claim 18 under 35 U.S.C. §103(a) be withdrawn because neither Izumi nor Timmers, whether taken singly or combined, teach or suggest the novel features of independent claim 18.

Regarding the rejection of claims 19 and 20, it is noted that these claims depend from independent claim 18, and as noted above, neither Izumi nor Timmers, whether taken singly or combined, teach or suggest the novel feature of independent claim 18. Therefore, Applicants respectfully assert that the rejection of dependent claims 19 and 20 under 35 U.S.C. §103(a) should be withdrawn, at least, because of their dependency from claim 18 and the reasons set forth above, and because the dependent claims include additional features which are not taught or suggested by the prior art.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

STEIN, MCEWEN & BUI, LLP

Date: 5/8/09

By: Douglas X. Rodriguez
Douglas X. Rodriguez
Registration No. 47,269

1400 Eye St., N.W.
Suite 300
Washington, D.C. 20005
Telephone: (202) 216-9505
Facsimile: (202) 216-9510